

STATE OF VERMONT  
PUBLIC SERVICE BOARD

Docket No. 5822

Investigation into Village of	)	Hearings at
Northfield Electric Department's	)	Montpelier, Vermont
Integrated Resource Plan filed on	)	November 21, 1995 and
May 5, 1995	)	January 4, 1996

Order entered: May 28, 1996

PRESENT: Sandra A. Waldstein, Hearing Officer

APPEARANCES: William B. Piper, Esq.  
Primmer & Piper, P.C.  
for the Village of Northfield Electric Department

Sheldon M. Katz, Esq.  
for the Vermont Department of Public Service

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## I. INTRODUCTION

This Proposal for Decision ("PFD") recommends that the Public Service Board ("Board") grant conditional approval to the integrated resource plan ("IRP") of the Village of Northfield Electric Department ("Northfield") as modified by the Stipulation in this Docket filed by Northfield and the Department of Public Service ("Department" or "DPS"). The parties agree that Northfield's IRP, as modified by the Stipulation, meets the requirements of 30 V.S.A. § 218c and complies with the Board's Orders in Docket No. 5270 and the DPS's Twenty-Year Plan. I recommend that the Board approve this IRP subject to the explicit condition that Northfield comply with the terms and agreements incorporated in the Stipulation.<sup>1</sup>

## II. PROCEDURAL HISTORY

Northfield filed this IRP on May 5, 1995. This is the second IRP filed by Northfield; its first IRP was approved on January 7, 1993, in Docket No. 5270-NFLD-1. A prehearing conference was held in this Docket on July 13, 1995, at which time a schedule was set for proceeding in this case. The Department filed its position paper on October 30, 1995, and Northfield prefiled testimony on November 13, 1995. A technical hearing was held on November 21, 1995. At that hearing, the parties stated that they had reached agreement on most issues but needed more time for Northfield's Board of Trustees to review the settlement. A full Stipulation was filed by the parties on December 27, 1995, and an evidentiary hearing on the Stipulation was held on January 4, 1996.

## III. FINDINGS OF FACT

### A. LOAD FORECAST

1. Northfield has an estimated 1,854 customers of which 1,580 are residential, 15 are industrial, 177 are commercial, 21 are public and 61 are street and yard light customers. Exh. Northfield A. at Appendix 2-A.

2. Northfield projects a system peak of 5,480 KW and energy consumption of 31,611 MWH in the year 2013. Exh. Northfield A. at 1-1.

3. Northfield currently has excess power supply for which it is paying full cost. *Id.* at 1-2.

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1. As detailed below, Northfield is required to make six compliance filings of which three have been made.

4. Northfield agrees to make revisions to its load forecast as detailed in the Stipulation and will resubmit a revised load forecast as a compliance filing by January 29, 1996.<sup>2</sup> Exh. Joint-1 at 1, 2.

5. Northfield's revised load forecast will include a real electricity price forecast with its -0.5 price elasticity in its residential end-use model and ensure that its use of NEPOOL's average appliance electricity usage figures are not double counted. *Id.* at 1.

6. Northfield will revise its projections of future electric residential water heat to reflect the likely share of new electric domestic water heating installations. *Id.* at 2.

7. Northfield will use, if appropriate, statewide manufacturing employment rather than non-farm employment as a predictor of industrial loads. *Id.*

8. Northfield will correct a spreadsheet error in its commercial and industrial load growth. *Id.*

9. Northfield will make appropriate adjustments to its short and long-run commercial and industrial forecasts. *Id.*

10. Northfield will expand its discussion of its peak load forecast to show why statewide load factor forecasting by NEPOOL is appropriate for forecasting Northfield's load factor. Exh. Northfield-1 at 2.

11. Northfield agrees to expand its discussion of the major sources of uncertainty affecting each segment of its forecast as detailed in the Stipulation. Northfield will make a reasonable attempt to identify and gauge the magnitude of the most important sources of uncertainty in its forecasts and develop confidence intervals that reasonably capture the likely range of alternative futures that Northfield is likely to face. The parties agree that uncertainty levels should realistically reflect the future range of outcomes. Exh. Joint-1 at 3.

12. The Department agrees to provide data assistance to Northfield if needed to revise and improve its forecast, subject to availability of Department resources. *Id.*

## B. SUPPLY RESOURCES

13. Northfield's IRP, as originally submitted, projects avoided costs at three cents or less until 2003. Exh. Northfield-1 at 3-9.

14. Northfield agrees to rerun its power costs simulation analysis to include consideration of additional supply resources after 2003. Additional resources will

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2. Northfield submitted this filing on January 30, 1996.

include generic units as modeled by Northfield based upon assumptions in the 1995 NEPOOL Generation Task Force ("GTF") report, with fuel costs escalating at the DPS values for the applicable fuel type used in Northfield's previous model. Exh. Joint-1 at 3.

15. Northfield will re-examine avoided costs for the period from 1996 to 2003, and from the period of 2003 to 2013, as detailed in the Stipulation. Northfield will submit these revised avoided costs as a compliance filing by February 15, 1996.<sup>3</sup> *Id.*

16. For the period 1996 to 2003, the avoided costs will reflect estimates of marginal energy costs actually incurred by Northfield under the current GMP-Northfield All Requirements Contract, plus estimates of the value (if any) of avoided peaking capacity, avoided upstream transmission and distribution losses, deferral of future transmission and distribution investment, and avoided capability responsibility reserve obligation. *Id.* at 3, 4.

17. For the period 2003 to 2013, avoided costs will contain the same components as above, relying more heavily on the cost of generic units described in paragraph 5 of the Stipulation. Exh. Joint-1 at 4.

### C. DEMAND-SIDE MANAGEMENT

18. Because of low projected avoided costs in Northfield's original IRP filing, Northfield plans to scale back its DSM programs. Exh. Northfield-A at 1-2.

19. Northfield's IRP as originally filed contains only one program, residential retrofit low-income (Dogwood Glenn apartments), that passes the societal cost-benefit test. *Id.* at 5-2.

20. Northfield will pay Vermont State Housing Authority up to \$ 20,000 for the fuel conversion at Dogwood Glenn apartments. Northfield's commitment to this project is expected to be completed by May 1996. Tr. of 1/4/96 at 14, 20.

21. Norwich University is expected to use 4,059 MWH in 2013, or 13 percent of peak energy consumption. Norwich University is currently undergoing a capital improvement program. Northfield is in close contact with them to address any potential lost opportunities for energy efficiency improvements. Exh. Northfield-A at 2-8; tr. of 1/4/96 at 12, 13.

22. Using avoided costs revised according to the terms of the Stipulation, Northfield agrees to do the following:

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3. Northfield submitted this filing on February 15, 1996, and amended its filing on February 26, 1996.

- (a) Northfield agrees to use a screening tool and a screening methodology which is consistent with established practice for measure and program level screening according to the societal test. The Department and Northfield will identify such a tool and seek agreement on a screening methodology. If agreement between the parties has been reached by the time for the compliance filing on avoided costs, the result will be filed by the parties. If agreement cannot be reached, the parties may bring the issue to the Board for resolution;
- (b) Northfield will screen both measures and programs to evaluate their cost-effectiveness, using detailed measure characterizations with program assumptions and program designs as they are developed by the DPS for the six programs proposed by the DPS in its testimony in this proceeding;<sup>4</sup>
- (c) Northfield will adopt each program design that passes cost-effectiveness screening and will participate in its implementation in a manner which is designed to both lower Northfield's administrative costs, and enhance its statewide effectiveness and potential for market transformation;
- (d) Northfield may review the DPS's assumptions, particularly as they apply to Northfield's service territory, and propose appropriate adjustments prior to conducting screening. The Parties will seek to resolve differences or, if agreement cannot be reached, refer them to the Board for resolution;
- (e) The Department will provide measure characterizations, program designs and assumptions as they are completed for its recommended "core" DSM programs. Provision of such information will be completed by February 15, 1996. Northfield will complete its screening and make a compliance filing with the Board, detailing

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4. These programs ("Core") include the following: residential new construction, residential market-driven retrofit, low-income retrofit, residential products point-of-sale, commercial and industrial new construction, commercial and industrial replacement, remodeling and renovation.

- screening assumptions and results, program designs, implementation schedules, and program budgets, by March 15, 1996;<sup>5</sup>
- (f) Northfield will continue to offer its customers assistance and measure incentives under the terms of its 1991 IRP program designs for its commercial and industrial new construction program, its commercial and industrial equipment & remodeling program, its Norwich Equipment replacement and remodeling program, and its energy efficient lighting trade ally program. Northfield agrees to complete its participation in the Dogwood Glen fuel conversion project. These programs will continue until Northfield has completed screening for the programs described in the DPS testimony (the "Interim Period");
  - (h) As the screening tool and methodology described in paragraph 7a of the Stipulation are agreed upon, the screening tool and settlement avoided costs will be used to screen individual measures for cost-effectiveness during the Interim Period.

Exh. Joint-1 at 5, 6.

23. Northfield's DSM programs that will be continued through this interim period are designed to capture lost opportunities. Tr. of 1/4/96 at 26.

#### D. TRANSMISSION AND DISTRIBUTION

24. The parties agree that complete and up-to-date least-cost distribution equipment acquisition procedures, a least-cost distribution system study, and a distribution system implementation plan are essential components of an IRP. The parties agree that these components must be completed prior to the closing of this Docket. Exh. Joint-1 at 6.

25. The parties agree that upgrading Northfield's distribution system to 12.47 kV is the least-cost option for Northfield and that it is necessary to complete least-cost distribution acquisition procedures and a least-cost distribution study before planning the implementation of the voltage upgrade. *Id.* at 6, 7.

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5. Northfield submitted a letter on March 19, 1996, stating that as of March 15, 1996, it had received assumptions and program designs for only two of the six Core programs identified by the Department. Therefore, Northfield is unable to meet this filing date. Northfield states, as per the terms of the Stipulation, it will continue to offer its current DSM programs until the Core programs are ready.

26. The parties agree that all distribution system efficiency opportunities will be evaluated using the net present value of the life-cycle societal cost test as detailed in the Stipulation. A ten percent comparative risk adjustment shall be applied to that portion of distribution capital investments, beyond the minimum required distribution investments, that provides reduced line-loss benefits. *Id.* at 7.

27. Northfield will submit a compliance filing, according to the terms of the Stipulation, that contains a schedule for developing distribution equipment acquisition procedures and for completing a distribution system study by January 15, 1996.<sup>6</sup> This filing shall include a thorough description of the evaluation models and methodologies to be used in the equipment acquisition procedures and in the distribution system study as detailed in paragraph 11 of the Stipulation. *Id.* at 8.

28. The parties agree that at Northfield's request, the DPS will assist Northfield in the development of distribution equipment acquisition procedures and in the application of the societal test. *Id.* at 8.

29. Northfield will submit a compliance filing that contains completed distribution equipment acquisition procedures and a completed distribution system study by March 1, 1996.<sup>7</sup> The procedures and study will be conducted in accordance with Attachment I of the Stipulation. *Id.*

30. Northfield will submit a compliance filing containing a plan and timetable for implementing all cost-effective distribution system efficiency measures identified in the completed distribution system study by April 1, 1996<sup>8</sup>. *Id.* at 9.

#### E. OTHER FINDINGS

31. The parties agree that Northfield will submit its next IRP on June 1, 1998. *Id.*

32. Northfield's IRP as modified by the Stipulation satisfies 30 V.S.A. § 218c and the Board's Orders in Docket No. 5270. Tr. of 1/4/96 at 37, 38.

#### IV. DISCUSSION

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6. Northfield submitted this filing on January 22, 1996.

7. Northfield submitted a letter on February 27, 1996, in which it states that this submission would be delayed by approximately two weeks. As of the date of this proposal for decision, Northfield has not made this compliance filing.

8. Northfield has not yet submitted this filing.

Northfield is currently operating its system under the terms of its IRP approved by the Board on January 7, 1993. Under the terms of that IRP, Northfield is offering a number of DSM programs to its customers. Based on new avoided cost projections incorporated in Northfield's IRP filed in this Docket, Northfield had intended to significantly scale back its DSM offerings. However, Northfield and the DPS have reached agreement on revisions to Northfield's newly filed IRP which could have an impact on avoided costs projections and DSM program screening. The Stipulation filed by the parties in this Docket requires Northfield to make these revisions and file them with the Board as a series of compliance filings. In the interim, Northfield has agreed to continue to offer the DSM programs in its currently approved IRP. The continuation of these programs in the interim is designed to capture lost opportunities.

The parties and Northfield have agreed on certain modifications to Northfield's IRP and have agreed that with those modifications Northfield's IRP should be approved by the Board as meeting the statutory criteria of 30 V.S.A. § 218c. At the technical hearing on January 4, 1996, I expressed some concern that the timetable for compliance filings as set forth in the Stipulation was ambitious. The parties stated that they were confident that the compliance filing dates would be met. Tr. of 1/4/96 at 24.

However, some of the critical dates for compliance filings have passed and as of the date of this PFD, the Board is still awaiting the submission of all the compliance filings contemplated by the Stipulation. While this IRP, in conjunction with the terms of the Stipulation, meets the statutory requirements of 30 V.S.A. § 218c., I cannot recommend approval of Northfield's IRP at this time. Rather I recommend that the Board grant conditional approval pending the fulfillment of the terms of the Stipulation. Once all compliance filings have been made and deemed satisfactory, I will recommend that the Board grant final approval to Northfield for this IRP and close this Docket. It is my opinion that such a ruling would not be prejudicial to the parties, for fulfillment of the terms of the Stipulation as agreed to by the parties will consummate the approval process.

I conclude based on the evidence in this Docket that Northfield's IRP, as modified by the Stipulation (attached hereto), is a least-cost plan that will acquire all cost-effective DSM pursuant to 30 V.S.A. § 218c and the Board's Orders in Docket No. 5270. I recommend that the Board approve Northfield's IRP subject to Northfield fulfilling the terms of the parties' Stipulation and submitting the compliance filings required therein. In addition, the DPS shall file responses to each of Northfield's compliance filings that specify the extent to which Northfield's filings satisfy the terms

of the Stipulation. I recommend that the Board grant final approval only after the terms and conditions of the Stipulation have been fully met.

#### V. PARTIES' COMMENTS

The Department and Northfield both filed comments on the PFD. The parties' comments refer to additional compliance filings made since the issuance of the PFD. The comments also address to what extent the compliance filings meet the terms of the Stipulation. In addition, there are still some compliance filings that remain outstanding as of the date of filing of the parties' comments. Rather than making a substantive determination at this time of the merits of the parties' comments upon these compliance filings, I recommend that the Board require the parties to participate in a status conference to review the progress of Northfield in meeting the terms of the Stipulation and to review the Department's position on whether Northfield's compliance filings have fulfilled the terms of the Stipulation and this Order.

Notwithstanding the unresolved issues identified in the parties' comments, I still recommend that the Board conditionally approve this IRP.

The foregoing is hereby reported to the Public Service Board in accordance with the provisions of 30 V.S.A. § 8. This Proposal for Decision has been served on all parties to this proceeding in accordance with 3 V.S.A. § 811.

DATED at Montpelier, Vermont, this 28th day of May, 1996.

s/Sandra A. Waldstein

Sandra A. Waldstein  
Hearing Officer

## VI. BOARD DISCUSSION

We are concerned about the lack of progress and long delays incurred by Northfield in acquiring energy efficiency resources. These delays only serve to increase electric bills for Northfield's customers. Therefore, we instruct the Hearing Officer to monitor this case closely so that all compliance filings are made and, more importantly, so that Northfield implements cost-effective DSM programs as required by Vermont law for the benefit of its customers.

## VII. ORDER

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that:

1. The findings, conclusions and recommendations of the Hearing Officer are hereby adopted.
2. Northfield's IRP is approved subject to Northfield fulfilling the terms of the Stipulation.
3. Northfield shall make all the remaining compliance filings in this Docket as required by the terms of the Stipulation.
4. The DPS shall file responses to all subsequent compliance submissions two weeks after they are made.
5. The Hearing Officer shall hold a status conference to review the compliance filings required under the Stipulation and the Department's comments on those filings.
6. This Docket shall remain open until all the above compliance filings have been made, the DPS has filed comments on those filings, and any disputed issues are resolved.
7. Northfield shall submit its next IRP on June 1, 1998.

DATED at Montpelier, Vermont, this 28th day of May, 1996.

<u>s/Richard H. Cowart</u>	)	PUBLIC SERVICE
	)	
<u>s/Suzanne D. Rude</u>	)	BOARD
	)	
<u>s/ David C. Coen</u>	)	OF VERMONT

OFFICE OF THE CLERK

FILED: MAY 28, 1996

ATTEST: s/Susan M. Hudson  
Clerk of the Board

*NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board of any technical errors, in order that any necessary corrections may be made.*

*Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.*